

CLAIMS

1. In a mobile communication device receiving a spread spectrum signal which includes a common pilot channel (CPICH) signal and at least one dedicated physical data channel (DPDCH) signal, a method for performing channel equalization at a receiver, comprising the steps of:

- (a) measuring the speed of said mobile communication device;
- (b) measuring a channel quality indicator;
- (c) using said measurements of speed and channel quality indicator to determine a value for the adaptation coefficient of an adaptive equalizer;
- (d) using said adaptation coefficient and said adaptive equalizer to perform equalization of said at least one DPDCH signal.

2. A method as defined in claim 1, wherein said channel quality indicator in step (b) is signal-to-noise ratio of said CPICH signal.

3. A method as defined in claim 1, wherein said channel quality indicator in step (b) is signal-to-noise ratio of said at least one DPDCH signal.

4. A method as defined in claim 1, wherein said adaptive equalizer in step (c) and step (d) is the NLMS adaptive equalizer.

5. A method as defined in claim 1, wherein said adaptive equalizer in step (c) and step (d) is the Griffiths adaptive equalizer.
6. A method as defined in claim 1, wherein said adaptive equalizer in step (c) and step (d) is the Prefilter Rake adaptive equalizer.
7. A method as defined in claim 1, wherein said measuring speed of said communication device includes performing Doppler shift estimation.
8. A communication apparatus, comprising:
 - means for measuring the speed of physical movement of said apparatus;
 - means for measuring a channel quality indicator;
 - means for using said measurements of speed and channel quality indicator to determine a value for the adaptation coefficient of an adaptive equalizer; and
 - means for using said adaptation coefficient and said adaptive equalizer to perform equalization of said at least one dedicated physical data channel (DPDCH) signal.
9. The apparatus of Claim 8, wherein said means for measuring a channel quality indicator uses signal-to-noise ratio of a CPICH signal to determine channel quality.
10. The apparatus of Claim 8, wherein said means for measuring a channel quality indicator uses signal-to-noise ratio of said at least one DPDCH signal.

11. The apparatus of Claim 8, wherein said adaptive equalizer in said means for using said measurements of speed and channel quality indicator to determine a value for the adaptation coefficient of an adaptive equalizer is an NLMS adaptive equalizer.
12. The apparatus of Claim 8, wherein said adaptive equalizer in said means for using said measurements of speed and channel quality indicator to determine a value for the adaptation coefficient of an adaptive equalizer is a Griffiths adaptive equalizer.
13. The apparatus of Claim 8, wherein said adaptive equalizer in said means for using said measurements of speed and channel quality indicator to determine a value for the adaptation coefficient of an adaptive equalizer is a Prefilter Rake adaptive equalizer.
14. The apparatus of Claim 8, wherein said measuring speed of said apparatus includes performing Doppler shift estimation.